AMENDMENTS TO THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

1.   **(Currently Amended)** A method of processing a database service query, comprising:

receiving a service query,

~~applying principles of logic to the service query to obtain~~ **obtaining** a sum of terms **by expanding at least one nested term into one or more un-nested terms,**

evaluating each term as a separate SQL instruction, and

executing each separate SQL instruction.

2.   **(Original)** The method as claimed in claim 1, further comprising expanding each term to remove NOT operators.

3.   **(Original)** The method as claimed in claim 2, wherein the sum of terms are expanded using Boolean logic.

4.   **(Original)** The method as claimed in claim 1, in which the service query is an X.500 or LDAP service query.

5.   **(Original)** The method as claimed in claim 1, in which the service query is a search service query.

6.   **(Original)** A method of processing a database service query, comprising:

determining a SQL instruction representative of a function;

listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list; and

not listing results which are duplicates of previously listed subtracted or non-subtracted results.

7. **(Original)** The method as claimed in claim 6, in which the service query is an X.500 or LDAP query.

8. **(Original)** The method as claimed in claim 6, in which the service query is a search service query.

9. **(Currently Amended)** A ~~directory service arrangement including:~~ **system for processing a directory service query, comprising:**

a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data; and

means for processing a service query by ~~applying principles of logic to the service query to obtain~~ **obtaining** a sum of terms **by expanding at least one nested term into one or more un-nested terms**, evaluating each term as a separate SQL instruction, and executing each separate SQL instruction.

10. **(Currently Amended)** The directory service arrangement as claimed in claim 9, further ~~including~~ **comprising** means to perform X.500 or LDAP services.

11. **(Currently Amended)** A directory service arrangement ~~including:~~ **comprising:**

a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data, and

means for processing a service query by determining a SQL instruction representative of a function, listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list, and not listing results which are duplicates of previously listed subtracted or non-subtracted results.

12. **(Currently Amended)** The directory service arrangement as claimed in claim 11, further ~~including~~ **comprising** means to perform X.500 or LDAP services.

13.   **(Original)** A method for processing a database service query, comprising:

translating a service query to an expression;

simplifying the expression to a number of smaller expressions, each smaller expression being capable of being flattened;

flattening each smaller expression; and

executing each flattened expression.

14.   **(Currently Amended)** A method of processing a directory service query, comprising:

receiving a **directory** service query,

~~applying principles of logic to the directory service query to obtain~~ **obtaining** a sum of terms **by expanding at least one nested term into one or more un-nested terms,**

mapping the sum of terms to SQL,

evaluating each mapped term as a separate SQL instruction, and

executing each separate SQL instruction.

15.   **(Previously Presented)** The method as claimed in claim 14, further comprising expanding each term to remove NOT operators.

16.   **(Original)** The method as claimed in claim 15, wherein the sum of terms are expanded using Boolean logic.

17.   **(Previously Presented)** The method as claimed in claim 14, in which the service query is an X.500 or LDAP service query.

18.   **(Previously Presented)** The method as claimed in claim 14, in which the service query is a search service query.

19. **(Previously Presented)** A method of processing a directory service query, comprising:

determining a SQL instruction representative of the directory service query;

listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list; and

not listing results which are duplicates of previously listed subtracted or non-subtracted results.

20. **(Previously Presented)** The method as claimed in claim 19, in which the service query is an X.500 or LDAP query.

21. **(Previously Presented)** The method as claimed in claim 19, in which the service query is a search service query.

22. **(Currently Amended)** A ~~directory service arrangement, including:~~ **system for processing a directory service query, comprising:**

a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data; and

means for processing a directory service query by ~~applying principles of logic to the directory service query to obtain~~ **obtaining** a sum of terms **by expanding at least one nested term into one or more un-nested terms,** mapping the sum of terms to SQL, evaluating each mapped term as a separate SQL instruction, and executing each separate SQL instruction.

23. **(Currently Amended)** The directory service arrangement as claimed in claim 22, further ~~including~~ **comprising** means to perform X.500 or LDAP services.

24.　**(Currently Amended)** A directory service arrangement ~~including:~~ **comprising:**

a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data, and

means for processing a directory service query by determining a SQL instruction representative of the directory service query, listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list, and not listing results which are duplicates of previously listed subtracted or non-subtracted results.

25.　**(Currently Amended)** The directory service arrangement as claimed in claim 24, further ~~including~~ **comprising** means to perform X.500 or LDAP services.

26.　**(Previously Presented)** A method for processing a directory service query, comprising:

translating a directory service query to an expression;

simplifying the expression to a number of smaller expressions, each smaller expression being capable of being flattened;

flattening each smaller expression; and

executing each flattened expression.

27.　**(New)** The method of claim 1 further comprising:

obtaining a plurality of results wherein each separate SQL instruction is associated with one or more results; and

combining the one or more results associated with each separate SQL instruction.

28.　**(New)** The method of claim 27, wherein:

evaluating each term as a separate SQL instruction comprises:

identifying at least one term associated with at least one NOT operator; and

expanding the at least one term associated with the at least one NOT operator into at least one negative term;

obtaining a plurality of results comprises obtaining one or more negative results associated with the at least one negative term; and

combining the one or more results comprises subtracting the one or more negative results associated with the at least one negative term.

29.   (New) The method of claim 27, further comprising, subsequent to obtaining a plurality of results:

identifying one or more duplicate results; and

deleting or ignoring the one or more duplicate results.

30.   (New) The method of claim 1, wherein:

evaluating each term as a separate SQL instruction comprises:

identifying at least one term associated with at least one NOT operator; and

expanding the at least one term associated with at least one NOT operator into at least one negative term and at least one positive term.

31.   (New) The method of claim 30, further comprising:

obtaining a plurality of results wherein each term is associated with one or more results;

generating a first list comprising one or more results associated with the at least one negative term;

generating a second list comprising one or more results associated with the at least one positive term; and

removing or omitting from the second list one or more results associated with the at least one negative term.